

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-9 (Canceled).

Claim 10 (Canceled).

Claim 11 (Canceled).

Claims 12-20 (Canceled).

Claims 21-28 (Canceled).

Claims 29-45 (Canceled).

46. (Currently Amended) A turbine having multiple turbine stages, a third turbine stage comprising:

a wheel having ninety wheelposts, each having an interleaved system of fillets and tangs; and

a plurality of buckets each having a corresponding interleaved system of fillets and tangs so that said plurality of buckets can be fitted, one to one, into said ninety wheelposts on said wheel;

wherein said interleaved system of fillets and tangs on said buckets and wheelposts act to reduce stresses acting on said fitted buckets and wheelposts, the fillets and tangs of said interleaved system of fillets and tangs each being formed by a combination of curved and straight surfaces;

wherein for each one of said plurality of buckets the distance from the bottom of the bottom most tang to the upper most straight portion of the upper most fillet is 1.4530 inches;

wherein for each one of said plurality of buckets the distance from the bottom of the bottom most tang to a first intersection point of tangent lines drawn along pressure faces of the tang adjacent to the bottom most tang is 0.5249 inches;

~~The turbine as claimed in claim 45,~~ wherein for each one of said plurality of buckets the distance from the bottom of the bottom most tang to a second intersection point of tangent lines drawn along pressure faces of the upper most tang is 0.8191 inches.

47. (Previously Presented) The turbine as claimed in claim 46, wherein for each one of said plurality of buckets the distance from the bottom of the bottom most tang to a point defined by the intersection of a line through said first and second intersection points and a tangent line along an upper straight surface of the bottom most tang is 0.2407 inches.

Claims 48-49 (Canceled).

50. (Previously Presented) The turbine as claimed in claim 46, wherein for each one of said plurality of buckets the angle between the upper most straight portion of the upper most fillet and the upper most straight portion of the upper most tang is 50 degrees.

51. (Previously Presented) The turbine as claimed in claim 47, wherein for each one of said plurality of buckets the angle between the upper most straight portion of the upper most fillet and the upper most straight portion of the upper most tang is 50 degrees.

Claims 52-53 (Canceled).

54. (Currently Amended) A turbine having multiple turbine stages, a third turbine stage comprising:
a wheel having ninety wheelposts, each having an interleaved system of fillets and tangs; and
a plurality of buckets each having a corresponding interleaved system of fillets and tangs so that said plurality of buckets can be fitted, one to one, into said ninety wheelposts on said wheel;
wherein said interleaved system of fillets and tangs on said buckets and wheelposts act to reduce stresses acting on said fitted buckets and wheelposts, the fillets and tangs of said interleaved system of fillets and tangs each being formed by a combination of curved and straight surfaces;

wherein below the uppermost tang on each of said wheelposts there is a fillet having a radius of curvature of 0.0855 inches;

wherein above the bottom most tang on each of said wheelposts there is a fillet having a radius of curvature of 0.0752 inches;

~~The turbine as claimed in claim 53,~~ wherein below the bottom most tang on each of said wheelposts there is a compound fillet having a first radius of curvature of 0.2052 inches and a second radius of curvature of 0.3420 inches, the first radius of curvature being measured from two points equally offset 0.0465 inches from either side of a center line bisecting each of said wheelposts and at a distance of 0.2134 inches from the bottom of said compound fillet, and the second radius of curvature being measured from the center line bisecting each of said wheelposts at a distance of 0.3420 inches from the bottom of said compound fillet.

Claims 55-56 (Canceled).

57. (Currently Amended) ~~The turbine as claimed in claim 56,~~ A turbine having multiple turbine stages, a third turbine stage comprising:

a wheel having ninety wheelposts, each having an interleaved system of fillets and tangs; and

a plurality of buckets each having a corresponding interleaved system of fillets and tangs so that said plurality of buckets can be fitted, one to one, into said ninety wheelposts on said wheel;

wherein said interleaved system of fillets and tangs on said buckets and wheelposts act to reduce stresses acting on said fitted buckets and wheelposts, the

fillets and tangs of said interleaved system of fillets and tangs each being formed by a combination of curved and straight surfaces;

wherein for each one of said wheelposts the distance from the bottom of the bottom most fillet to the upper most straight portion of the upper most tang is 1.4530 inches;

~~The turbine as claimed in claim 55,~~ wherein for each one of said wheelposts the distance from the bottom of the bottom most fillet to a first intersection point of tangent lines drawn along pressure faces of the fillet adjacent to the bottom most fillet is 0.5251 inches;

wherein for each one of said wheelposts the distance from the bottom of the bottom most fillet to a second intersection point of tangent lines drawn along pressure faces of the upper most fillet is 0.8193 inches.

58. (Previously Presented) The turbine as claimed in claim 57, wherein for each one of said wheelposts the distance from the bottom of the bottom most fillet to a point defined by the intersection of a line through said first and second intersection points and a tangent line along an upper straight surface of the bottom most fillet is 0.2409 inches.

Claims 59-60 (Canceled).

61. (Previously Presented) The turbine as claimed in claim 57, wherein for each one of said wheelposts the angle between the upper most straight portion of the upper most tang and the upper most straight portion of the upper most fillet is 50 degrees.

62. (Previously Presented) The turbine as claimed in claim 58, wherein for each one of said wheelposts the angle between the upper most straight portion of the upper most tang and the upper most straight portion of the upper most fillet is 50 degrees.